



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,493	07/16/2002	Martin John Hofmann	34516	9453
116	7590	04/29/2004	EXAMINER	
PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			THIERKORN, ERNEST G	
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/089,493	HOFMANN, MARTIN JOHN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ernest G. Therkorn	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-32 is/are pending in the application.
- 4a) Of the above claim(s) 18-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 1723

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 11, 13, and 16 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Miller (G.B. Patent No. 1,312,096). The claims are considered to read on Miller (G.B. Patent No. 1,312,096). However, if a difference exists between the claims and Miller (G.B. Patent No. 1,312,096), it would reside in optimizing the steps of Miller (G.B. Patent No. 1,312,096). It would have been obvious to optimize the steps of Miller (G.B. Patent No. 1,312,096) to enhance separation.

Claims 2, 3, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (G.B. Patent No. 1,312,096) in view of Rosencwaig (U.S. Patent No. 4,324,131). At best, the claims differ from Miller (G.B. Patent No. 1,312,096) in reciting monitoring the attenuation of the signal. Rosencwaig (U.S. Patent No. 4,324,131) (column 1, lines 61-68 and column 2, lines 22-47) discloses that measuring the change in ultrasonic attenuation allows for a more universal detector than an ultraviolet detector. It would have been obvious to monitor the attenuation of the signal because

Art Unit: 1723

Rosencwaig (U.S. Patent No. 4,324,131) (column 1, lines 61-68 and column 2, lines 22-47) discloses that measuring the change in ultrasonic attenuation allows for a more universal detector than an ultraviolet detector.

Claims 7-10, 12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (G.B. Patent No. 1,312,096) in view of Tabata (U.S. Patent No. 5,061,371). At best, the claims differ from Miller (G.B. Patent No. 1,312,096) in reciting use of a plurality of locations. Tabata (U.S. Patent No. 5,061,371) (column 3, lines 57-62) discloses that use of a plurality of detectors with spacing allows covering the side wall of the packed column. It would have been obvious to use a plurality of locations in Miller (G.B. Patent No. 1,312,096) because Tabata (U.S. Patent No. 5,061,371) (column 3, lines 57-62) discloses that use of a plurality of detectors with spacing allows covering the side wall of the packed column.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (G.B. Patent No. 1,312,096) in view of Rosencwaig (U.S. Patent No. 4,324,131) as applied to claims 2, 3, and 14 above, and further in view of Tabata (U.S. Patent No. 5,061,371). At best, the claim differs from Miller (G.B. Patent No. 1,312,096) in view of Rosencwaig (U.S. Patent No. 4,324,131) in reciting use of a plurality of locations. Tabata (U.S. Patent No. 5,061,371) (column 3, lines 57-62) discloses that use of a plurality of detectors with spacing allows covering the side wall of the packed column. It would have been obvious to use a plurality of locations in Miller (G.B. Patent No. 1,312,096) in view of Rosencwaig (U.S. Patent No. 4,324,131) because Tabata (U.S.

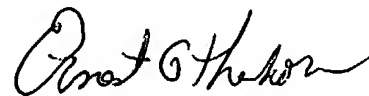
Art Unit: 1723

Patent No. 5,061,371) (column 3, lines 57-62) discloses that use of a plurality of detectors with spacing allows covering the side wall of the packed column.

The restriction requirement has been reconsidered, deemed proper, and made final for the reasons of record.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (571) 272-1149. The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Ernest G. Therkorn**  
**Primary Examiner**  
**Art Unit 1723**

EGT  
April 26, 2004